

Department of the Interior
Environmental Assessment

Proposed

Opening of Mathews Brake National Wildlife Refuge
to
Fishing

Prepared:
February 1981

Fish and Wildlife Service
U.S. Department of the Interior

Area Manager

I. PURPOSE AND NEED FOR ACTION

The purpose of the proposed action is to provide recreational opportunities in the form of sport fishing by the utilization of a renewable resource. Legal fishing used as a proper management tool is proposed to enhance the fisheries resource by maintaining balanced populations.

II. ALTERNATIVES INCLUDING PROPOSED ACTION

A. Proposal

The fishing plan calls for general regulations pertaining to licenses, creel limits, and methods of taking fish to follow those of the Mississippi Department of Wildlife Conservation as published annually (see Attachment). Currently the applicable species of fish which may be taken in Mississippi and their respective daily limits are:

Black Bass	10	Walleye	15
White Bass	50	Sauger	15
Crappie	50	Sunfishes	100

The aggregate daily limit of all species is 100 per day and the possession limit is 200. All refuge waters will be open to sport fishing within the framework established by the State.

B. No Action Alternative

This alternative would involve not opening Mathews Brake to sport fishing.

C. Reduction in Size of Area Open to Fishing and Length of Season

This alternative would involve not opening some waters of Mathews Brake NWR to fishing and reducing the number of days available for fishing.

III. ENVIRONMENTAL CONSEQUENCES

A. Proposal

1. Impact on Fisheries Resource

Fishing pressure on Mathews Brake NWR is moderate and no significant impact on the resource should occur by allowing the activity to continue. Removal of any "rough" fish from the population will probably be beneficial. The removal of

any fish represents a permanent loss of the individual and a short term loss to the population.

2. Impact on Wildlife Resources

Some slight disturbance to waterfowl in winter months and other wildlife throughout the year by fishermen could occur. This disturbance should be minor and any potential problems can be solved by time-space scheduling of fishing activities.

3. Impact on Endangered Species

Fishermen-alligator confrontations are possible and to the extent that firearms restrictions are enforceable the potential for shootings is reduced. Most public users during the period of peak alligator activity are fishermen. Because of this most of any alligator harassment and mortality that may occur could possibly be linked at least indirectly to sport fishing activities. Encouraging proper public awareness of alligators and strict enforcement of all applicable laws should preclude any significant impacts.

Bald eagles and peregrine falcons have not yet been observed on the refuge. The most likely time of their occurrence coincides with the period of lowest fishing activity (winter). Any impacts would be limited to temporary disturbance of individual birds.

4. Impact on Public Use

Sport fishing and hunting activities will overlap to some degree, particularly during the fall period. No conflicts of any consequence are expected, however, because of the nature of habitats present and the time span between peak use periods for these activities. Non-consumptive public use on the refuge is presently low due to access limitations and a general lack of interest in the area for activities such as nature study and photography. Only a moderate increase in these activities is expected, and no conflicts between the refuge fishing program and non-consumptive users are expected.

5. Impact on Human Environment

The consumptive use of the fisheries on Mathews Brake NWR will be offensive to that segment of our society who question the morality of killing any animal. Fishing by many others is considered a legitimate and beneficial recreational pursuit.

B. No Action

No action would involve not opening the refuge to sport fishing. Potential disturbance to waterfowl or endangered species by fishermen would be lessened. A small but important loss of wildlife-oriented recreation would occur. It is probable that public attitudes in Mississippi would become hostile toward the Fish and Wildlife Service if fishing were prohibited on Mathews Brake NWR. Other more significant Service programs could be adversely affected by such action.

C. Reduce Size of Area Open to Fishing and Length of Season

Some additional protection of endangered species would be afforded. Any waterfowl disturbances could be curtailed. A loss in recreational opportunities would correspond to any reduction in fishing area or seasons. Public attitudes would be negatively affected according to the extent of the restrictions.

IV. DESCRIPTION OF THE AFFECTED ENVIRONMENT

A. Location and General Description

Mathews Brake National Wildlife Refuge is located in the Yazoo River Basin of the Mississippi Delta between State highway 7 and U.S. highway 49 in west central Mississippi. The refuge is 9 miles south of Greenwood, Mississippi, in Leflore County. The refuge occupies 807 acres with additional land acquisition possible in the future.

Topography is level to gently sloping with maximum land elevations never exceeding 100 feet above mean sea level. The soils range from somewhat poorly drained clays to well drained silty soils found in natural levees. Drainage in Mathews Brake Refuge is primarily from Abiaca Creek and Alligator Bayou into the Yazoo River. The climate is humid sub-tropical with an average annual temperature of 64.8 degrees. Mean annual rainfall is 51.8 inches. Winter rains, November through April, account for 30 inches of the annual precipitation.

B. Habitat and Wildlife

Historically, the Mississippi Delta area produced an abundance of diverse fish and wildlife resources. The clearing of bottomland hardwood forests in this century to produce agricultural crops has resulted in a drastic decline in these high quality resources. Refuge habitat types are dominated by bottomland hardwood forests interspersed with bald cypress/tupelo sloughs and "brakes" (Type 7 wetlands) and shallow depressions characterized by buttonbush, water elm, swamp privet, and willow (Type 6 wetlands). Dominant forest species include cottonwood, willow, and sycamore along streambanks; green ash, sugarberry, American elm and Nuttall oak on the intermediate flats; and sweetgum, willow oak, water oak, occurring on ridges, and bitter pecan and overcup oak on the low

lying first bottom flats.

The fauna is diverse with many popular and important species present. Refuge wetlands are noted for large numbers of wintering waterfowl. Mallard, wood duck, wigeon, pintail, green-winged teal, and gadwall are the most numerous migratory waterfowl, but many other species of ducks are common. These waterfowl have historically utilized refuge wetlands and flooded hardwood forests for resting and feeding.

The principal resident game species are fox and gray squirrel, white-tailed deer, raccoon, and swamp and cottontail rabbits. Furbearing species of the area include beaver, nutria, raccoon, mink, otter, weasel, spotted and striped skunk, and bobcat. Non-game wildlife is also abundant on the refuge with the diversity and interspersed habitat types creating an edge effect beneficial to wildlife. There is a small population of American alligators on the refuge, and there is considerable habitat acreage available for this endangered species. Although neither the southern bald eagle nor the American peregrine falcon have been observed in the Mathews Brake area in recent years, both are winter migrants of the Mississippi Delta. Sloughs, beaver impoundments, and other refuge wetlands provide a diversified and abundant amount of fish habitat throughout the refuge. Species may include any of the fishes common to the Mississippi or Yazoo Rivers.

C. Existing Human Uses

Before acquisition, primary human uses of the refuge were hunting, fishing, and trapping. Wildlife use in recent years has been dictated by leased and privately owned hunting camps whose primary interest has been fishing and waterfowl hunting.

D. Cultural Resources

A cultural resources survey has not yet been conducted on Mathews Brake Refuge. There are no sites on the refuge or within the proposed acquisition area that are listed on the National Register of Historic Places or designated as a National Natural Landmark.

E. Refuge Development

As a recent addition to the National Wildlife Refuge System, no development has been carried out on Mathews Brake. Only a small portion of the refuge consists of dry land and accordingly, a very limited road system exists. Best internal access to most of the area is by boat. A commercial boat launching site presently exists adjacent to the refuge.

V. CONSULTATION AND COORDINATION WITH OTHERS

Consultation has been received from the Fish and Wildlife Service Area Office in Jackson, Mississippi, and the Mississippi Department of Wildlife Conservation.

50 CFR Part 33

Mathews Brake National Wildlife Refuge, Mississippi

Agency: Fish and Wildlife Service, Interior

Action: Special regulations

SUMMARY: The Director has determined that the opening to sport fishing of Mathews Brake National Wildlife Refuge is compatible with the objectives for which this area was established, will utilize a renewable natural resource, and will provide additional recreational opportunity to the public. This document establishes special regulations effective for the upcoming sport fishing seasons.

DATES: Period covered- March 1, 1981 to October 31, 1981.
See State regulations for bag limits.

FOR FURTHER INFORMATION CONTACT: The Area Manager or the Refuge Manager at the address or telephone number listed below:

Area Manager, U.S. Fish and Wildlife Service
200 East Pascagoula Street, Suite 300,
Jackson, Mississippi 39201. Telephone (601) 960-4900.

Refuge Manager, Mathews Brake National Wildlife Refuge
P.O. Box 107
Yazoo City, Mississippi 39194. Telephone (601) 746-8511.

SUPPLEMENTARY INFORMATION: Sarah McClellan is the primary author of these special regulations.

Sport fishing is permitted on national wildlife refuges in accordance with 50 CFR Part 33, all applicable state regulations and the following special regulations:

The Refuge Recreation Act of 1962 (16 USC 460k) authorizes the Secretary of the Interior to administer such areas for public recreation as an appropriate incidental or secondary use only to the extent that it is practicable and not inconsistent with the primary objectives for which the area was established. In addition, the Refuge Recreation Act requires: (a) That any recreational use permitted will not interfere with the primary purpose for which the area was established: and (b) that funds are available for the development, operation, and maintenance of the permitted forms of recreation.

The recreational use authorized by these regulations will not interfere with the primary purposes for which these refuges were

established. This determination is based upon consideration of, among other things, the Service's Final Environmental Statement on the operation of the National Wildlife Refuge System published in November, 1976. Funds are available for the administration of the recreational activities permitted by these regulations.

§ 33.5 Special regulations; Sport fishing; for individual wildlife refuge areas.

- (1) Sport fishing is permitted in all refuge waters from March 1, 1981 through October 31, 1981.

The Department of the Interior has determined that this document is not a significant rule and does not require a regulatory analysis under Executive Order 12044 and 43 CFR Part 14.